AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

Claim 1. (Previously Presented) A wave digital filter, comprising:

an adapter having at least first and second inputs and a controlled gate to disable the propagation into or within the adapter of a valid signal value received at the first input when a non-valid signal value is received at the second input.

Claim 2. (Previously presented) A wave digital filter according to claim 1, wherein the controlled gate of the adapter comprises a latch.

Claim 3. (Previously presented) A wave digital filter according to claim 1, wherein the controlled gate of the adapter comprises a strobe gate.

Claims 4-8 (Canceled)

Claim 9. (Previously presented) A wave digital filter according to claim 1, wherein the controlled gate comprises a delay unit.

Claim 10. (Previously presented) A wave digital filter according to claim 1, comprising two or more adapters, wherein the controlled gate is able to delay the propagation of the valid signal value such that the valid signal value enters one of the two or more adapters substantially simultaneously with another valid signal value received by one of the two or more adapters.

Claim 11. (Previously presented)   A filter according to claim 1, wherein the value whose propagation is delayed for the predetermined time.

Claim 12 (Canceled)

Claim 13. (Previously presented) A wave digital filter according to claim 1, wherein the adapter comprises two or more ports, at least one port including one of said first and second inputs and an output.

Claim 14-15 (Canceled)

Claim 16. (Previously presented) A wave digital filter according to claim 1, wherein the adapter comprises a multiplier.

Claim 17 (Canceled)

Claim 18. (Previously presented) A wave digital filter according to claim 1, wherein the two or more adapters comprise two or more different types of adapters.

Claim 19-22 (Canceled)

Claim 23. (Previously presented) A method comprising:
enabling an adapter of a wave digital filter to calculate new signal values based on signal values received at two or more inputs of the adapter only when valid signal values are received at all inputs of the adapter.

Claim 24. (Previously presented) A method according to claim 23, comprising providing an input which carries a result from a different adapter.

Claim 25. (Previously presented) A method according to claim 23, wherein enabling comprises enabling after a predetermined time.

Claim 26. (Previously presented) A method according to claim 23, comprising disabling the adapter from calculating the new signal values until all the signal values required for performing the calculation are expected to be valid.

Claim 27. (Previously presented) A method according to claim 23, wherein disabling comprises disabling an input of the adapter using a latch.

Claim 28 (Canceled)

Claim 29. (Previously presented) A method comprising:

disabling propagation of a first valid signal value received at a first input of an adapter of a wave digital filter until a second valid signal value is received at a second input of the adapter; and

enabling the adapter to calculate one or more new signal values based on the first and second valid signal values.

Claim 30. (Previously presented) A method according to claim 29, wherein disabling comprises delaying propagation of the signal value received at the first input for a predetermined time.

Claims 31 – 40 (Canceled)

Claim 41. (Previously presented) A wave digital filter according to claim 10, wherein the controlled gate is able to delay the propagation of signal values from one adapter of the two or more adapters to another adapter of the two or more adapters until a predetermined number of changes occur in the signal values.

Claims 42 – 52 (Canceled)

Claim 53. (Previously presented) A wave digital filter, comprising:

a controlled gate to control the propagation of a value generated by a first adapter to a second adapter based on the validity of the value.

Claim 54. (Previously presented) An adapter of a wave digital filter, comprising:

two or more inputs operably coupled to two or more functional units; and

two or more enable lines operably coupled to the two or more functional units, respectively, wherein the two or more enable lines provide control signals to enable the operation of the two or more functional units, respectively, when valid signal values are received on the two or more inputs.

Claim 55. (Previously presented) The adapter of claim 54, wherein the two or more inputs are operably coupled to the two or more functional units.

Claim 56. (Previously presented) The adapter of claim 54, wherein the number of functional units is substantially equal to the number of the adapter inputs.

Claims 57- 59 (Canceled)

Claim 60. (Currently Amended) ~~The~~ A wave digital filter ~~of claim 57~~ [[,]]comprising:

a first adapter having at least three inputs and at least three outputs;

a second adapter having at least three inputs and at least three outputs;

a first controlled gate operably coupled to a first input of the first adapter;

a first register operably coupled to a first output of the first adapter;

a second controlled gate operably coupled to the first register and to a second input of the first adapter; and

a third controlled gate operably coupled to a second output of the first adapter and to one of the inputs of the second adapter,

wherein the first controlled gate, the second controlled gate and the third controlled gate are able to hold signal [[values]] values, and wherein the control unit is able to open the first controlled gate, the second controlled gate and the third controlled gate based on the valid signal values they hold.